

WHAT IS CLAIMED IS:

1. A method for retrofitting an adjustable chair including a seat, a pedestal base, and a gas cylinder extending therebetween, said method comprising the steps of:

uncoupling the gas cylinder from the chair;

coupling a height adjustment mechanism to the chair that is configured to electrically adjust a height of the seat relative to the pedestal base, wherein the height adjustment mechanism includes a limit switch that is configured to limit an amount of movement of the height adjustment mechanism; and

coupling the pedestal base to the height adjustment mechanism.

2. A method in accordance with Claim 1 wherein said step of uncoupling the gas cylinder further comprises the steps of:

uncoupling an upper end of the gas cylinder from the chair seat; and

uncoupling a lower end of the gas cylinder from the pedestal base.

3. A method in accordance with Claim 2 wherein said step of uncoupling a lower end of the gas cylinder further comprises the step of supporting the chair seat while the pedestal base is forcibly separated from the gas cylinder lower end.

4. A method in accordance with Claim 2 wherein said step of uncoupling a lower end of the gas cylinder further comprises the step of using a mallet to separate the pedestal base from the gas cylinder lower end.

5. A method in accordance with Claim 2 wherein said step of uncoupling an upper end of the gas cylinder further comprises the step of supporting the chair seat while forcibly separating the gas cylinder upper end from the chair seat.

6. A method in accordance with Claim 2 wherein said step of uncoupling an upper end of the gas cylinder further comprises the step of using a mallet to separate the gas cylinder upper end from the chair seat.

7. A method in accordance with Claim 1 wherein said step of coupling a height adjustment mechanism further comprises the step of coupling a height adjustment mechanism including an upper enclosure member and a lower enclosure member rotatably coupled to said upper enclosure member, at least one of said upper enclosure member and said lower enclosure member telescopically moveable relative to said remaining enclosure member.

8. A method in accordance with Claim 1 wherein said step of coupling a height adjustment mechanism further comprises the step of coupling a height adjustment mechanism including a drive shaft, a gear box coupled to the drive shaft, and an electric motor motor-gear an electric motor coupled to the gear box.

9. A method in accordance with Claim 8 wherein said step of coupling a height adjustment mechanism further comprises the step of coupling a height adjustment mechanism further including a battery and a control switch coupled to the electric motor and the battery with a plurality of wiring.

10. A method in accordance with Claim 9 wherein said step coupling a height adjustment mechanism further comprises the step of coupling a height adjustment mechanism further including a housing that is formed integrally with the battery, control switch, gear box, drive shaft, motor, and wiring, are integral with the housing.

11. A method in accordance with Claim 1 further comprising the step of adjusting an amount of stroke travel for the height adjustment mechanism.

12. A method in accordance with Claim 11 wherein said step of adjusting an amount of stroke travel further comprises the steps of:

electrically coupling a motor to the height adjustment mechanism;

electrically coupling a rechargeable battery to the motor and to the limit switch; and

electrically coupling a control switch to the battery and the motor.

13. A method in accordance with Claim 12 wherein said step of adjusting an amount of stroke travel further comprises the steps of:

engaging the control switch to electrically adjust a position of the chair in a first direction; and

adjusting the limit switch to limit an amount of travel in the first direction.

14. A method in accordance with Claim 12 wherein said step of adjusting an amount of stroke travel further comprises the steps of:

engaging the control switch to electrically adjust a position of the chair in a first direction;

engaging the control switch to electrically adjust a position of the chair in a second direction;

adjusting the limit switch to limit an amount of travel in the first direction; and

adjusting the limit switch to limit an amount of travel in the second direction.

15. A method for replacing a gas cylinder in an adjustable chair, the chair including a seat, a pedestal base, the gas cylinder extending between the pedestal base and the chair seat, said method comprising the steps of:

uncoupling the gas cylinder from the pedestal base;

uncoupling the gas cylinder from the chair seat;

coupling an electrically adjustable height adjustment mechanism including an electric motor to the chair seat;

coupling the pedestal base to the height adjustment mechanism to the pedestal base; and

electrically coupling a limit switch to the chair to limit an amount of movement of the height adjustment mechanism.

16. A method in accordance with Claim 15 wherein said step of electrically engaging the height adjustment mechanism further comprises the steps of:

electrically adjusting a position of the chair in a first direction;

electrically adjusting a position of the chair in a second direction;

adjusting the limit switch to limit an amount of travel in the first direction; and

adjusting the limit switch to limit an amount of travel in the second direction.

17. A method in accordance with Claim 16 wherein said step of coupling an electrically adjustable height adjustment mechanism further comprises the step of coupling a height adjustment mechanism including an upper enclosure member and a lower enclosure member rotatably coupled to the upper enclosure member, such that at least one of the upper enclosure member and the lower enclosure member is telescopically moveable relative to the remaining enclosure member.

18. A method in accordance with Claim 16 further comprising the step of coupling a resistance-sensing switch to the chair to control power to the electric motor.

19. A method in accordance with Claim 16 further comprising the step of coupling a power supply including a rechargeable battery to the chair for supplying power to the motor.

20. A method in accordance with Claim 16 further comprising the step of coupling a control switch to the electric motor for selectively controlling operation of the height adjustment mechanism.

21. A method for retrofitting an adjustable chair including a seat, a pedestal base, a gas cylinder, and a back, the gas cylinder coupled to the base and the seat, the back adjustably to the seat, said method comprising the steps of:

replacing the gas cylinder with an electrically actuated height adjustment mechanism including an electric motor and a limit switch that limits an amount of travel of the height adjustment mechanism; and

replacing the existing chair back with a chair back configured to be electrically adjusted with respect to the chair seat.

22. A method in accordance with Claim 21 wherein said step of replacing the gas cylinder further comprises the steps of:

coupling a height adjustment mechanism to the chair that includes a drive shaft, a gear box coupled to the drive shaft, and an electric motor motor-gear an electric motor coupled to the gear box, such that the chair is electrically adjustable;

coupling a control switch to the electric motor for selectively controlling operation of the height adjustment mechanism; and

adjusting the limit switch to limit a range of movement of the height adjustment mechanism.

23. A method in accordance with Claim 22 wherein said step of replacing the gas cylinder further comprises the steps of:

coupling a height adjustment mechanism to the chair that includes an upper enclosure member and a lower enclosure member rotatably coupled to said upper enclosure member, such that at least one of the upper enclosure member and the lower enclosure member is telescopically moveable relative to the remaining enclosure member; and

coupling a resistance-sensing switch to the chair to control power to the electric motor.

24. A method in accordance with Claim 22 further comprising the step of removably coupling a power supply including a rechargeable battery to the chair for supplying power to the motor.

25. A method in accordance with Claim 22 further comprising the steps of:

coupling a control mechanism to the chair seat such that the seat is mechanically and electrically adjustable with respect to the chair base; and

coupling the chair back to the control mechanism such that the chair back is electrically adjustable with respect to the chair base.

26. A method in accordance with Claim 25 wherein said step of coupling a control mechanism to the chair seat further comprises the step of coupling

the chair seat to the control mechanism such that the chair seat is mechanically adjustable in proportion to an amount of weight applied to the seat by an occupant of the seat.

27. A method in accordance with Claim 25 wherein said step of coupling a control mechanism to the chair seat further comprises the step of coupling the chair seat to the control mechanism such that an angular orientation of the chair seat is mechanically adjustable with respect to the base.

28. A method in accordance with Claim 25 wherein said step of coupling the chair back to the control mechanism further comprises the step of coupling the chair seat to the control mechanism such that the chair seat is pivotally coupled to the height adjustment mechanism.

29. A method in accordance with Claim 25 wherein the chair includes a front edge and a rear edge that is between the front edge and the chair back, said step of coupling a control mechanism to the chair seat further comprises the step of coupling the chair seat to the control mechanism to electrically adjust a distance between the chair rear edge and the chair back.

30. A method in accordance with Claim 25 further comprising the step of coupling the control switch to the control mechanism for selectively controlling operation of the control mechanism.

31. A method in accordance with Claim 25 further comprising the step of coupling at least one stop to the chair seat to limit an amount of mechanical movement of the chair seat.

32. A method in accordance with Claim 22 further comprising the step of coupling a control mechanism including at least a first motor-gear group to the chair seat to selectively electrically and mechanically adjust a position of the seat relative to the pedestal base.

33. A method in accordance with Claim 32 wherein said step of coupling a control mechanism further comprises the step of coupling the control mechanism to the chair seat to electrically control an angular orientation of the chair seat relative to the pedestal base.

34. A method in accordance with Claim 32 wherein said step of coupling a control mechanism further comprises the step of coupling the control mechanism to the chair seat to electrically adjust a height of the chair seat relative to the pedestal base.

35. A method in accordance with Claim 32 wherein said step of coupling a control mechanism further comprises the step of coupling the control mechanism to the chair seat to electrically adjust a lateral position of the chair seat relative to the pedestal base.

36. A method in accordance with Claim 32 wherein the chair seat includes a forward edge and a rear edge, the rear edge between the forward edge and the chair back, said step of coupling a control mechanism to the chair seat further comprising the step coupling the control mechanism to the chair seat to electrically adjust a distance between the chair rear edge and the chair back.

37. A method in accordance with Claim 32 wherein said step of coupling the control mechanism further comprises the step of coupling the control mechanism to the chair seat to mechanically adjust a position of the chair in proportion to an amount of weight applied to the chair seat by an occupant of the chair seat.

38. A method in accordance with Claim 32 wherein said step of coupling the control mechanism further comprises the step of coupling the control mechanism to the chair seat to mechanically adjust an angular orientation of the chair seat with respect to the base.

39. A method in accordance with Claim 32 further comprising the step of coupling at least one stop to the chair seat to limit an amount of mechanical movement of the chair seat.